very rich in free carbonic acid, especially the basins near the Wehnder paper-mill, and there is here found a rich and luxuriant vegetation, which in spring appears several entire weeks earlier, and continues in autumn much later than at other spots of the same district. Dr. Schleiden thinks that the free carbonic acid in the water exercises a favourable influence on the vegetation, which certainly may be the case; for observations have shown that by the vegetation of plants in solar light, the addition of a very small quantity of carbonic acid in the surrounding atmosphere produces a much more powerful disengagement of oxygen than takes place in the common atmosphere.—*Meyen's Report for* 1837 *in Wiegmann's Archiv*, Part III. 1838.

HYBRIDITY INFERNS.

M. Martens observed in the Botanical Garden of Louvain, a fern which he regarded as a hybrid between *Gymnogramma calomelanos* and *G. chrysophylla*, to which Bory de St. Vincent proposes to apply the name of *G. Martensii*. At the same time the latter gentleman observes that this hybrid formation appears to occur quite commonly in nature, for he had received several well-preserved specimens of this plant through L'Herminier from Guadaloupe, where it grows in nature between the two above-mentioned *Gymnogrammæ*. He also enumerates several other ferns which might be considered as hybrids, which are only grounded on supposition: to these however Dr. Meyen rather inclines to assent.—*Ibid.*

AFFINITIES OF THE *CERATOPHYLLACEA*.

Mr. Asa Gray has recently published in the 'Lyceum of Nat. Hist.' of New York, a paper on the affinities of the genus *Ceratophyllum*; it appears to him that a great similarity prevails between the embryos of the genera *Ceratophyllum* and *Nelumbium*, which he endeavours specially to demonstrate, and then places the *Ceratophyllaceæ* in the immediate vicinity of the *Cabombaceæ* and *Nelumbiaceæ*. The memoir contains no new observations, nor is there anything new respecting the structure of the *Ceratophyllaceæ*.

Dr. Schleiden in a paper published in one of the late numbers of the 'Linnæa,' admits only one species of *Ceratophyllum*, and calls this *C. vulgare*; a long series of observations are enumerated to prove this view. This paper also contains some remarks on the structure and affinities of this family.—*Ibid.*

STRIPED HYENA, (*H. vulgaris.*)

A litter has lately been bred in the Zoological Gardens at Liverpool. "The animals copulated after being together a fortnight.

The system is most singular. The male continued copulating nearly one hour, but I could not observe that they locked like dogs, and they did not turn as the latter animals do. The time of gestation has been twelve weeks from the first act of copulation; four cubs were produced, which continued blind for nine days."—J. J. Isaacson, *Liverpool Zoological Gardens.*

ON A REPRESENTATIVE OF THE ORDER OF INSECTIVOROUS MAMMALIA BELONGING TO NEW HOLLAND. BY M. GERVAIS.

The animal which is the subject of this note has been recently described in England under the name of *Myrmecobius fasciatus* by Mr. Waterhouse, who considers it as belonging to the class of the *Didelphides*, at the same time noticing the points of resemblance between it and certain Insectivora, and principally with the *Tupaia* or *Cladobatæ*. M. Gervais, insisting on these resemblances, remarks, that, comparing the osseous head of the *Myrmecobius* with that of the *Didelphides*, we find in the existence of two palatin holes (instead of four as in this group of animals), in the arrangement of the ascending branch of the lower jaw, &c., differences which would rather induce us to refer this new genus to the monodelphial mammifera than to the didelphial.—*Compte Rendu*, No. 14, Oct. 1838.

CAOUTCHOUC IN PLANTS*.

The substance caoutchouc is a widely disseminated constituent of vegetable fluids. It has hitherto, I believe, been found only in plants with milky juice, although its presence in all plants yielding such fluid remains to be proved. The presence of caoutchouc in silk has been, I believe, attributed to the nature of the fluids of the plants on which the caterpillars feed; but this, although applicable to the mulberry plants, can scarcely hold good with the various species of *Tetranthera* on which the Moonga feeds, or with the castor-oil plant, the chief food of the Eria, which in Assam does not appear to yield milk. Milky juice is often characteristic of certain families, but often not; its presence is frequently of importance, as it often affords valuable indications of affinity. It is remarkable that it is almost unknown in the grand division of Monocotyledonous plants. The families in which its presence may be said to be universal are *Apocquea*, *Asclepiadea*, *Campanulacea*, *Sobeliacea* and the great division of *Compositæ*, *Chicoracea*, of which the lettuce is a familiar example. It is of common occurrence in *Euphorbiacea* and *Tulicea*, which orders may be looked on as the grand sources of caoutchouc.

* From Mr. Wm. Griffith's Report. Journ. of the Asiatic Soc. of Bengal.